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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/579,620	05/26/2000	Joseph J. Danko	81328A	7830

23685 7590 05/18/2004

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EXAMINER

ROSENBERGER, RICHARD A

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/579,620

Applicant(s)

DANKO, JOSEPH J.

Examiner

Richard A Rosenberger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-10,12,13 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-10,12,13 and 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, and 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danko (US 5,659,390) in view of Kodate (US 5,0748,266).

Figure 4 of the Danko reference shows a system similar to that claimed, but with a CRT (111) rather than a liquid crystal display to feed the output of the processor (109) to a spatial light modulator (50) to form the Fourier mask. It would have been obvious to replace the CRT with other known image forming and projecting means, such as the claimed liquid crystal display. Liquid crystal displays are well known in the art; the instant specification, for example, treats the liquid crystal display (61 in figure 1) as known, requiring no more disclosure than a simple reference as a liquid crystal display; see page 12, line 10 and page 13, lines 13, 14, and 16, and gives no details as to structure or operation. Additionally, as mentioned by Kodate, there are art recognized advantages of liquid crystal displays over CRTs, such as being smaller (column 1, lines 17-21) and using less power (column 1, lines 23-24); Kodate also notes that a liquid crystal display "provides a display quality equal to that of the CRT". Thus, for the art recognized advantages of using a liquid

crystal display instead of a CRT while providing equal display quality, it would have been obvious to use a liquid crystal display instead of the CRT of the Danko reference.

3. Claims 12, 13 and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danko (US 5,659,390).

Figure 4 of the Danko reference shows a system similar to that claimed, but with the signals being fed to a CRT (111) to control the SLM rather than the signals being fed directly to an electrically addressable SLM. It would have been obvious to replace the CRT with other known image forming and projecting means, such as the claimed electrically addressable SLM; clearly the elimination of the CRT and associated optics of Danko would reduce both size and expense of the apparatus by allowing the signals processor 109 of figure 3 of Danko to control the SLM directly rather than indirectly through a CRT and associated optics. The claimed electrically addressable SLMs, both reflective and transmissive types, are presented in the instant specification as well known in the art; the instant specification, for example, treats them as known, requiring no more disclosure than a simple reference; see page 16, lines 2, 6-7, and 15-21 and page 18, line 16. With an electrically addressable SLM, as there is no required optics behind the SLM, the use of a transmissive rather than reflective SLM is a simple and straightforward substitution requiring no more than obvious rearrangement to place the

appropriate camera and associated optics behind rather than in form of the camera. Figure 4 of the Danko reference shows details of new claims 19-22, such as the use of two and three cameras.

4. The remarks filed 23 February 2004 state that "Applicant is not in agreement with the Examiner's analysis of Danko and Kodate..." (remarks, page 13, lines 22 through lines page 14, line 1). However, The reasons for the disagreement is not set forth, and thus response to those reasons or concerns is impossible. In particular no attempt to distinguish the newly presented claims over the art is made. The remarks state that "at least some of the reasons" have been set forth previously (remarks, page 14, lines 1-2). However, which, if any, of the arguments that have not been, in Applicant's opinion, addressed is not set forth.

The previous set of remarks argued that there are advantages to substituting a liquid crystal for the CRT of Figure 4 of the Danko reference (remarks filed 2 June 2003, page 22 through page 9, line 19) that are not recognized by the art that has been applied.. Those in the art are familiar with liquid crystal displays and recognize the advantages of their use over the CRT as used by Danko; thus there is clear motivation to substitute a liquid crystal imaging projector for the CRT of Danko. The elimination of the CRT and associated optics of Danko by feeding the signals from the processor to a known electrically addressable clearly reduces both size and expense, and thus there is clear motivation of that substitution. Patent law

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requires that there be some motivation for a substitution; it does not, however, require that there be recognition of all of the benefits disclosed in an application (*In re Dillon* (CA FC) 16 USPQ2d 1897 (11/9/1990)). Further, patent law does not require that the motivation be explicitly set forth in the references (*In re Oetiker* (CA FC) 24 USPQ2d 1443 (10/13/1992)). Here, the facts clearly demonstrate motivation for the substitutions noted above. Finding yet another reason for doing what is already obvious does not render such an obvious combination unobvious nor does it allow the patenting of an obvious variation of what is already known in the art.

Similarly, there is clearly art recognized reasons to replace the CRT of the device of figure 4 of The Danko reference with an electrically addressable SLM. As set forth in the statement of the rejection above, the simplification of the system is apparent.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

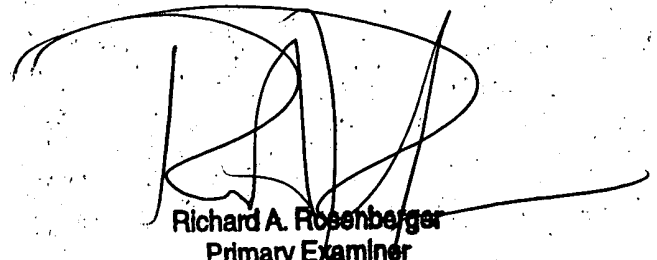
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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6. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 872-9306

Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (571) 272-2428.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Richard A. Rosenberger
Primary Examiner

R. A. Rosenberger
14 May 2004